

MONTANA'S 2020 CENSUS UPDATE



MARY CRAIGLE, BUREAU CHIEF, MONTANA DEPARTMENT OF COMMERCE
RESEARCH & INFORMATION SERVICES BUREAU (RIS)

APPORTIONMENT & DISTRICTING COMMISSION – MARCH 4, 2022



TOPICS TO COVER TODAY

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Presentation Outline

Census Question Resolution (CQR)

2020 Census Data - Accuracy of the Count, Impact of Differential Privacy, Hispanic/Latino Origin & Race Question

Next 2020 Census Product Releases and Other U.S. Census Products

All data presented is from the U.S. Census Bureau unless otherwise noted



Census Question Resolution (CQR) Program

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CQR gives state, tribal, and local officials the opportunity to request the Census Bureau review their official 2020 Census housing counts for potential processing errors.

CQR does not alter redistricting data, apportionment results or other 2020 Census data products. However, the CQR results will be used in the Census Bureau's Post-Enumeration Survey program, as a benchmark to the ACS and Population Estimates programs, and other programs (and funding formulas) that use 2020 Census Data.



Census Question Resolution CQR

What Can Be Challenged

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What **Can** Be Challenged:

- Legal Boundaries in effect on January 1, 2020
- Housing Counts geographic locations or placement of housing within your specified 2020 census tabulation blocks, as well as a review of the census records in specified 2020 census tabulation blocks for completeness of the housing inventory as of April 1, 2020
- **Possibly Group Quarters – will discuss this later**

Kalamazoo
city limits



Census Question Resolution CQR

What Can Be Challenged

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What **Cannot** be Challenged

(Because of Differential Privacy Statistical Noise Distortion)

- Population Counts (Change from 2010)
- Characteristics – Age, Gender, Race, etc. (Change from 2010)



“2020 CQR cannot correct the population count.... CQR does not include a review of population within existing housing (e.g., housing units and group quarters) or a review of occupancy status (i.e., whether housing was vacant or occupied).

The Census Bureau cannot research whether the respondents or census enumerators made an incorrect determination of individual housing size or occupancy status. You must provide documentation with your case indicating that the Census Bureau missed housing, not simply missed population.” [U.S. Census CQR FAQs](#)



Census Question Resolution CQR

Group Quarters

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What are Group Quarters?

Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, homeless shelters, prisons and worker dormitories.

In 2020, the U.S. Census Bureau counted more than 8.2 Million residents in group quarters.



2020 Post-Census Group Quarters Review (PCGQR)

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The Census Bureau has proposed allowing tribal, state and local governmental units the opportunity to request the Census Bureau to review their population counts for group quarter (GQ) facilities through a separate program – PCGQR.

Currently, the Bureau is accepting PCGQR challenges, but will not act on them until the Office of Management and Budget decides the challenges can be accepted – hopefully within the next month or two.



Census &
Economic
Information
Center
(CEIC)
Plan for
CQR

The deadline for eligible tribal, state, and local governmental units to submit a CQR case for review is June 30, 2023.

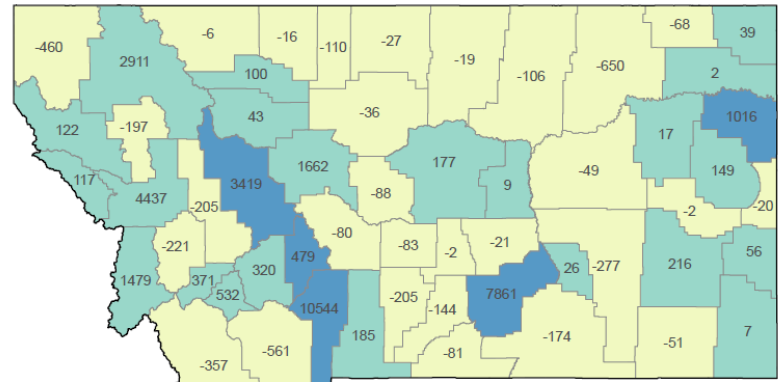
- Identify Housing Unit, Boundary and Group Quarter Anomalies January 1, 2022 – June 30, 2022
- Contact the Local Government for the Area (Tribe, City, County...) and discuss the concerns – July 2022
- Contact the Group Quarters Facility and discuss the concerns- July 2022
- Determine the workload sharing for those governments that would like to challenge - July 2022
- Submit challenges – August 2022 –May 31, 2023



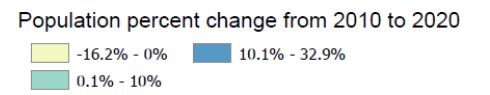
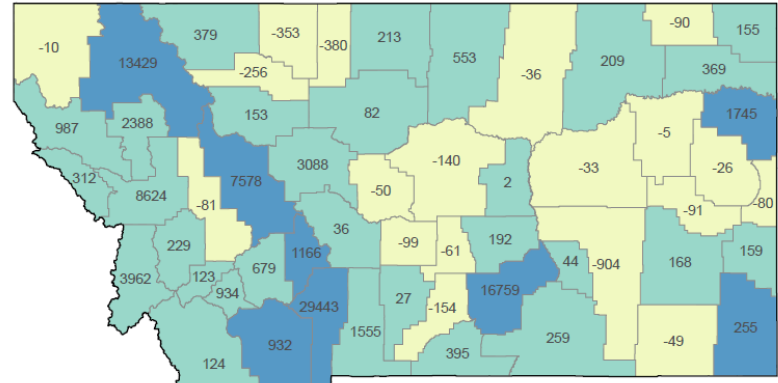
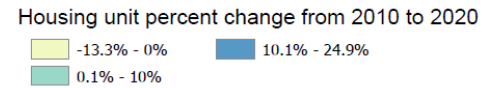
Example of How CEIC Identifies Anomalies

Population and Housing Unit Change

Montana County - Decennial Census (PL 94-171) 2010 to 2020



Map Labels reflect Numeric Change



Map produced by: Montana Department of Commerce
301 S. Park Ave., Helena, MT 59620 ceic.mt.gov email: ceic@mt.gov

Data Source: 2010 and 2020 Decennial Census (PL94-171), U.S. Census Bureau.



More examples of How CEIC Identifies Anomalies

Population of Dillon City Montana

2020 Population	3,880
2010 Population	4,134
Difference	- 254

Student Enrollment UM Western

2020 Enrollment	1,217
2010 Enrollment	1,365
Difference	- 148

Source: MT University System Dashboard

<https://www.mus.edu/data/dashboards/headcount.html>



2020 Census Data Accuracy of the Count

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Two Primary Sources of Counting (Enumeration) Errors

1. Housing Units / Boundary Errors (addressed through CQR)
2. Net Coverage Errors
 - Includes Components of Coverage (age, gender, race..)



Post-Enumeration Survey

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The Post-Enumeration Survey (PES) independently interviews people, asks where they lived on April 1, 2020, and then matches that information to the census results.

They also check to see if the components of coverage match – age, gender, etc.

The survey takes more than two years and involves enumerating housing units and people from scratch in about 10,000 blocks across the country.

Start here OR go online at my2020census.gov to complete your 2020 Census questionnaire
Use a blue or black pen.

Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

- Count all people, including babies, who live and sleep here most of the time.
- If no one lives and sleeps at this address most of the time, go online at my2020census.gov or call the number on page 8.

The census must also include people without a permanent place to live, so:

- If someone who does not have a permanent place to live is staying here on April 1, 2020, count that person.

The Census Bureau also conducts counts in institutions and other places, so:

- Do not count anyone living away from here, either at college or in the Armed Forces.
- Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2020.
- Leave these people off your questionnaire, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

How many people were living or staying in this house, apartment, or mobile home on April 1, 2020?
Number of people =

2. Were there any additional people staying here on April 1, 2020 that you did not include in Question 1?
Mark all that apply.

- Children, related or unrelated, such as newborn babies, grandchildren, or foster children
- Relatives, such as adult children, cousins, or in-laws
- Nonrelatives, such as roommates or live-in babysitters
- People staying here temporarily
- No additional people

3. Is this house, apartment, or mobile home — Mark ONE box, or loan? Include home equity loans.
(without a mortgage or loan)?

- Owned by you or someone in this household free and clear
- Owned by you or someone in this household with a mortgage (without a mortgage or loan)?
- Rented?
- Occupied without payment of rent?

4. What is your telephone number?
We will only contact you if needed for official Census Bureau business.

Telephone Number
 - -



Post-Enumeration Survey (PES)

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Net Coverage Error is the difference between the census count and the PES number of people.

If the net coverage error is negative, it means the census counts were too low and the census missed some people. We call this an undercount. If it is positive, it means the census counts were too high.

PES Results For Montana

Year	Result
2000	Undercount of 14,390 residents
2010	Overcount of 6,431 residents



2020 Census Data Accuracy of Impact of Differential Privacy

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Another source of population / characteristic count variability in 2020 Census is due to Disclosure Avoidance System (DAS) related impacts. In general, small geographic areas / small population groups often have high levels of uncertainty as measured by Coefficient of Variation or CV.

- If the CV is less than 15%, the data is highly reliable.
- If the CV is 15% to 30% the data is only moderately reliable.
- If the CV is greater than 30% it is very unreliable.



2020 Census Data Accuracy of Impact of Differential Privacy

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General Guidelines on the reliability of MT
2020 Decennial Data due to DAS

Geography or Pop Size	Guideline
County, Reservations, and School Districts	High Reliability
Rural Area	Low Reliability
Population 100 or more by Race Alone by County	High Reliability
Populations Under 100 by Race Alone by County	Moderate to Low Reliability
Block level data	Very Low Reliability



2020 Census Data

Hispanic or Latino Origin & Race Question

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A third source of variability in the 2020 Census are changes in question wording. Below is the difference in the Race Question:

2010 Questionnaire

9. What is Person 1's race? Mark one or more boxes.

White
 Black, African Am., or Negro
 American Indian or Alaska Native — Print name of enrolled or principal tribe. ↗

Asian Indian Japanese Native Hawaiian
 Chinese Korean Guamanian or Chamorro
 Filipino Vietnamese Samoan
 Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↗ Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↗

Some other race — Print race. ↗

2020 Questionnaire

9. What is Person 1's race?
 Mark one or more boxes **AND** print origins.

White — Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc. ↗

Black or African Am. — Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc. ↗

American Indian or Alaska Native — Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc. ↗

Chinese Vietnamese Native Hawaiian
 Filipino Korean Samoan
 Asian Indian Japanese Chamorro
 Other Asian — Print, for example, Pakistani, Cambodian, Hmong, etc. ↗ Other Pacific Islander — Print, for example, Tongan, Fijian, Marshallese, etc. ↗

Some other race — Print race or origin. ↗



2020 Census Data

Hispanic or Latino Origin & Race Question

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Below is the difference in the Hispanic/Latino Origin Questions:

2010 Questionnaire

2020 Questionnaire

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin — *Print origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.* ↴

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8. Is Person 1 of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin — *Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.* ↴

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Schedule for 2020 Census Product Releases and Other U.S. Population Census Products

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Product	Release Date
2020 American Community Survey 1 –Year Experimental Product	November 2021
2020 American Community Survey 5 –Year Data Products	March 2022
<p>Demographic & Housing Characteristics File (DHC) Some but not all of the demographic and housing tables previously included in the 2010 SF1 product.</p>	Tentatively 2022
<p>Detailed Demographic & Housing Characteristics (Detailed DHC) Racial and ethnic groups, and American Indian and Alaska Native tribes and villages. Some but not all of the tables previously included in the 2010 Census Summary File 2 (SF2) and the 2010 American Indian and Alaska Native Summary File (AIANSF).</p>	Unknown



QUESTIONS???

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CONTACT INFORMATION

MARY CRAIGLE,

BUREAU CHIEF

MONTANA DEPARTMENT OF COMMERCE

RESEARCH & INFORMATION SERVICES (RIS)

MARY.CRAIGLE@MT.GOV

406.841.2739

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AND MORE IS AVAILABLE AT:**

CEIC.MT.GOV



Slides after this are not part of the presentation but included in case there are specific questions about the 2020 Count and come from a presentation done late in 2021.



2020 Census MT Highlights

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Comparison of MT to select states

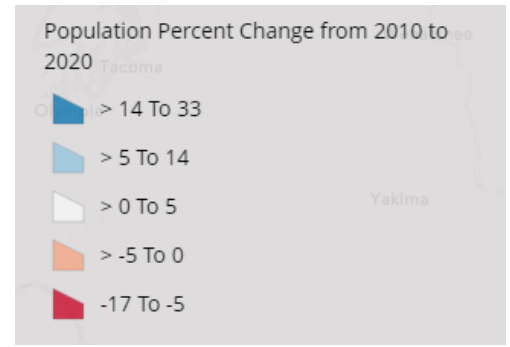
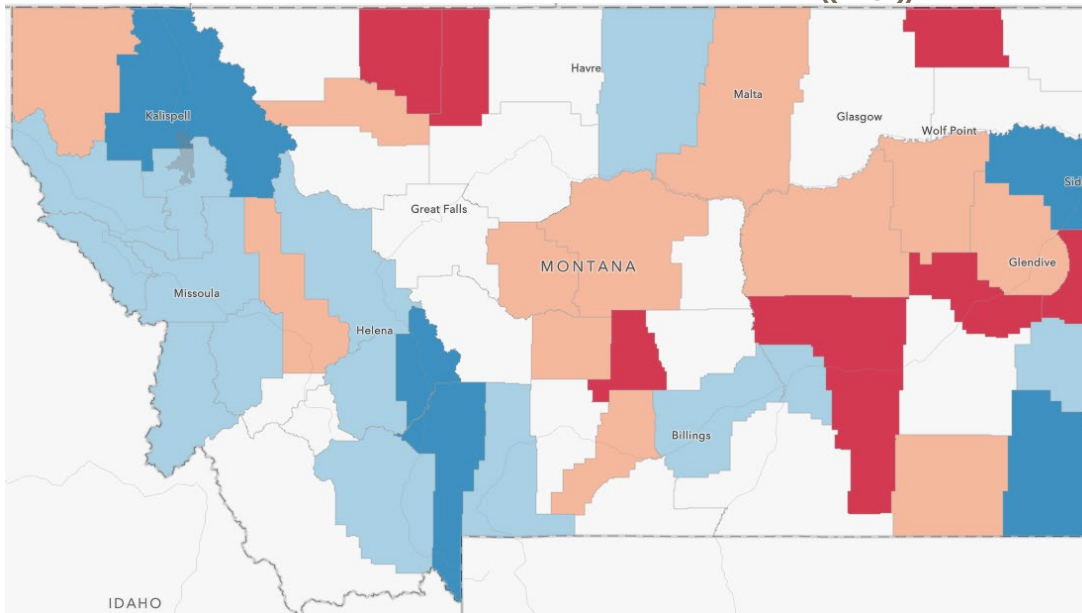
	Population Total	Numeric Change from Prior Year	Percent Change from Prior Year
New Jersey	9,288,994	406,804	4.6%
New York	20,201,249	747,688	3.8%
Rhode Island	1,097,379	38,018	3.6%
Vermont	643,077	19,088	3.1%
Idaho	1,839,106	52,041	2.9%
Puerto Rico	3,285,874	92,180	2.9%
Hawaii	1,455,271	39,399	2.8%
Alabama	5,024,279	121,094	2.5%
North Dakota	779,094	17,032	2.2%
Maryland	6,177,224	131,544	2.2%
Utah	3,271,616	65,658	2.0%
Massachusetts	7,029,917	137,414	2.0%
Delaware	989,948	16,184	1.7%
Pennsylvania	13,002,700	200,711	1.6%
Montana	1,084,225	15,447	1.4%
Nebraska	1,961,504	27,096	1.4%
Texas	29,145,505	149,624	0.5%
Wyoming	576,851	-1,908	-0.3%

From 2010 – 2020, Montana’s Resident Population grew by 94,810 individuals, an increase of 1% a year. Utah was fastest growth over the 10 years with 18.4% over the 10 years



MT County Population Changes

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Largest County – Yellowstone (164,731)
Smallest County – Petroleum (496)

Largest Nominal Change since 2010 – Gallatin (+29,447)
Largest Nominal Change since 2010 – Rosebud (-904)
Largest Percentage Change since 2010 – Gallatin (32.9%)



Change in Race/Ethnicity

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Racial Change in MT from 2010 to 2020 For Single-Race Alone or in Combination With Other Race

Source: U.S. Census 2010 and 2020 Decennial

Race	2010		2020	
	Population	%	Population	%
White Alone or in Combo	908,645	91.8%	985,660	90.9%
Black Alone or in Combo	7,917	0.8%	12,737	1.2%
American Indian / Alaskan Native Alone or in Combo	78,601	7.9%	100,578	9.3%
Asian Alone or in Combo	10,482	1.1%	16,889	1.6%
Native Hawaiian or Pacific Islander Alone or in Combination	1,732	0.2%	3,101	0.3%
Other Race Alone or in Combo	8,434	0.9%	40,625	3.7%

Ethnicity (Hispanic / Non-Hispanic) Change in MT from 2010 to 2020

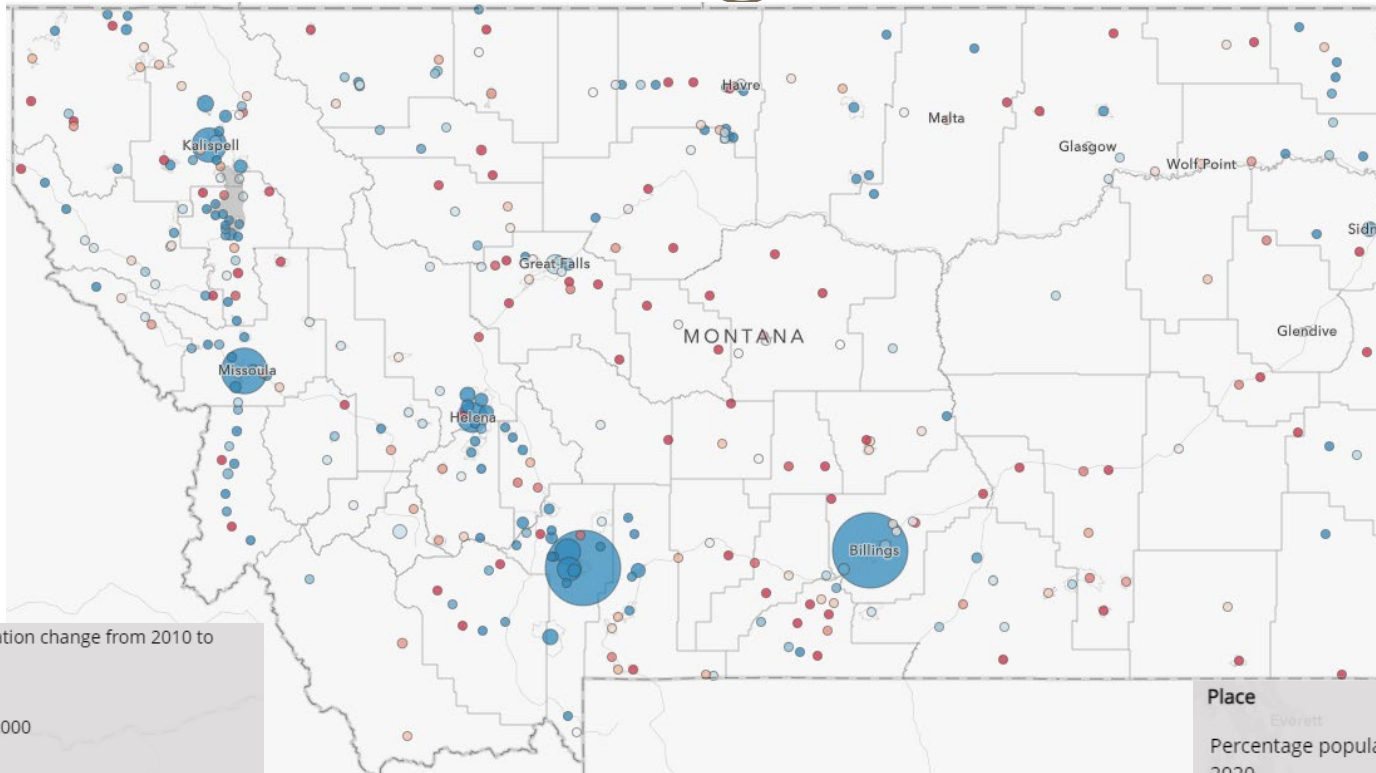
Source: U.S. Census 2010 and 2020 Decennial

Ethnicity	2010		2020	
	Population	%	Population	%
Hispanic	28,565	2.9%	45,199	4.2%
Non-Hispanic	960,850	97.1%	1,039,026	95.8%

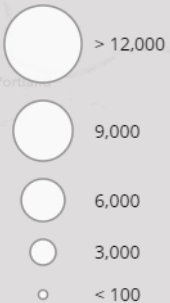


Population Change for Places

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Absolute population change from 2010 to 2020



Place

Percentage population change from 2010 to 2020



Comparison of Select Places

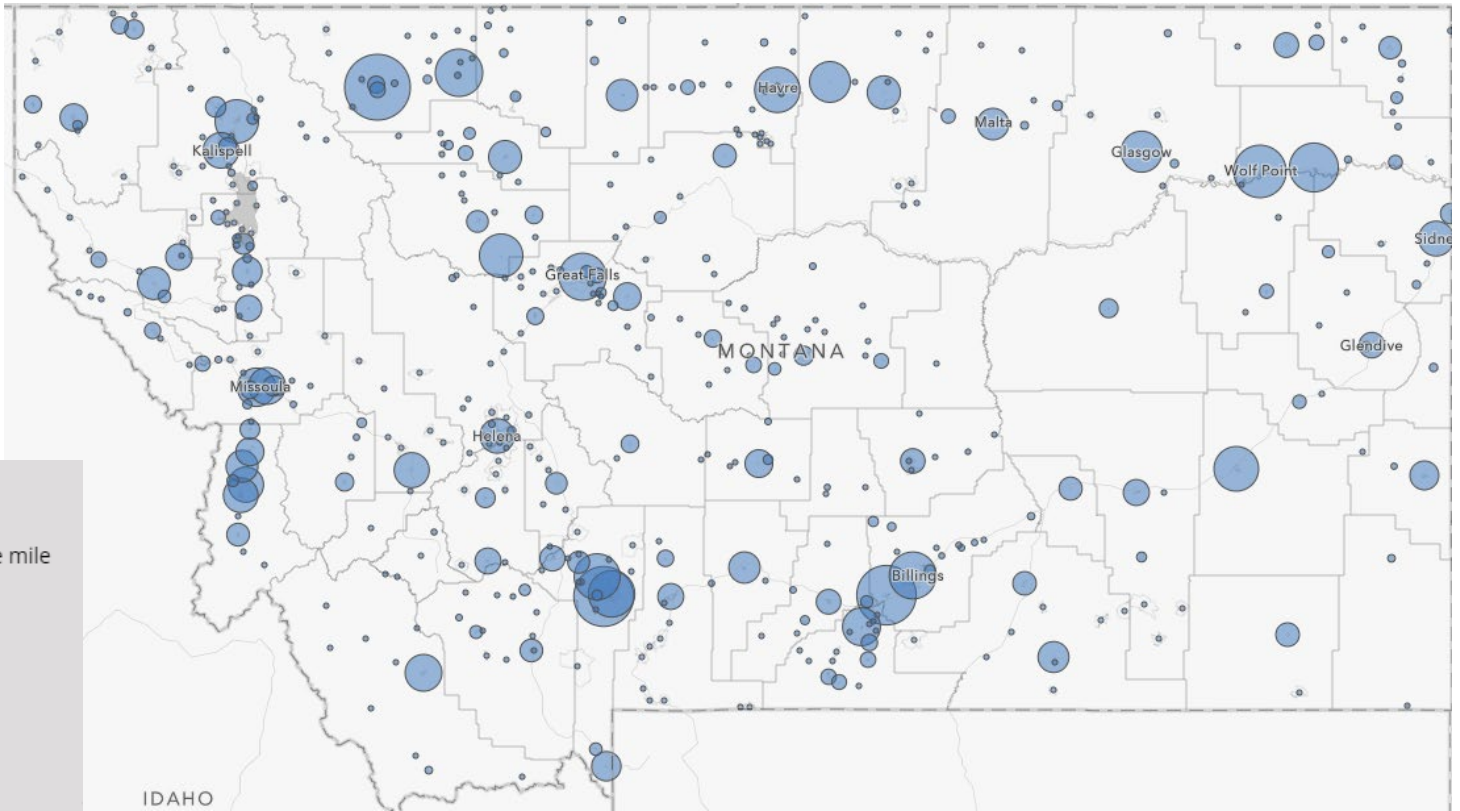
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Geography Name	Population total 2020	Population total 2010	Population change (nominal) 2010 to 2020	Population change (percent) 2010 to 2020
Bozeman city	53,293	37,280	16,013	43.0%
Billings city	117,116	104,170	12,946	12.4%
Missoula city	73,489	66,788	6,701	10.0%
Kalispell city	24,558	19,927	4,631	23.2%
Helena city	32,091	28,190	3,901	13.8%
Belgrade city	10,460	7,389	3,071	41.6%
Four Corners CDP	5,901	3,146	2,755	87.6%
Great Falls city	60,442	58,505	1,937	3.3%
Whitefish city	7,751	6,357	1,394	21.9%
Big Sky CDP	3,591	2,308	1,283	55.6%
Havre city	9,362	9,310	52	0.6%
Lewistown city	5,952	5,901	51	0.9%
Butte-Silver Bow (balance)	34,494	33,525	969	2.9%
Miles City city	8,354	8,410	(56)	-0.7%



Population Density

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Place

Population per square mile



2020 Data Issues and Next Release

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Issue one:

- **Statistical “fuzzy-ness” added to protect privacy**
 - **Block level data is unreliable and should not be used**
 - ✦ Blocks with occupied housing units but no people and the reverse
 - ✦ Calculated persons per household less than 1 (and very large, e.g., >30)
 - ✦ Blocks with children but no adults
 - **Data for Larger Geographies (Census Tracts, Towns, Designated Places, even Counties) should be carefully evaluated by comparing to past trends and other data**
 - **Many previous data products will not be available**



Issue Two:

- **Census conducted during Covid**

- Housing units missed – this can be challenged along with boundaries
- Group Quarters missed – this can't be challenged
- Population missed – this can't be challenged but missed housing units could modify counts



**Challenges (CQR) allowed until
October 2023**



2020 Census Data Schedule

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Demographic Profile

This product will provide selected demographic and housing characteristics about local communities.

- Subjects: 5-year age groups, sex, race, Hispanic or Latino origin, household type, relationship to householder, group quarters population, housing occupancy, housing tenure
- Lowest level of geography: Places and minor civil divisions (MCDs)
- Access: data.census.gov

Date: **Tentatively 2022**



2020 Census Data Schedule

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Demographic and Housing Characteristics File (DHC)

The DHC will include some of the demographic and housing tables previously included in the 2010 Census Summary File 1 (SF1).

- Subjects: Age, sex, race, Hispanic or Latino origin, household type, family type, relationship to householder, some subjects provided for major OMB race/ethnicity groups, group quarters population, housing occupancy, housing tenure
- Lowest level of geography: To be determined

Date: **Tentatively 2022**



Where MT's Population is Headed

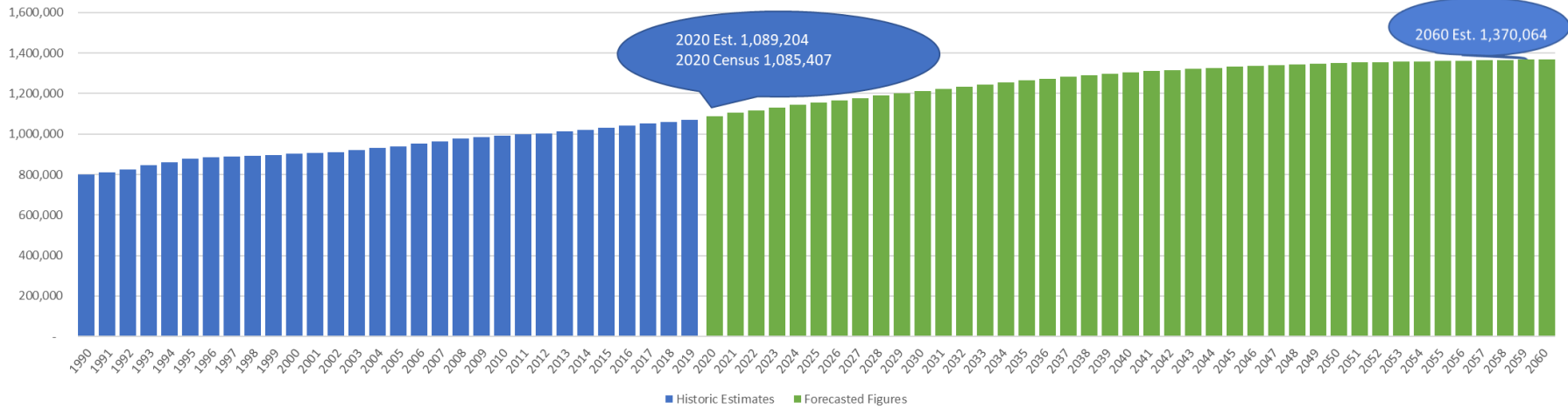
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Population Past and Forecast

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Montana Historic & Forecasted Total Population



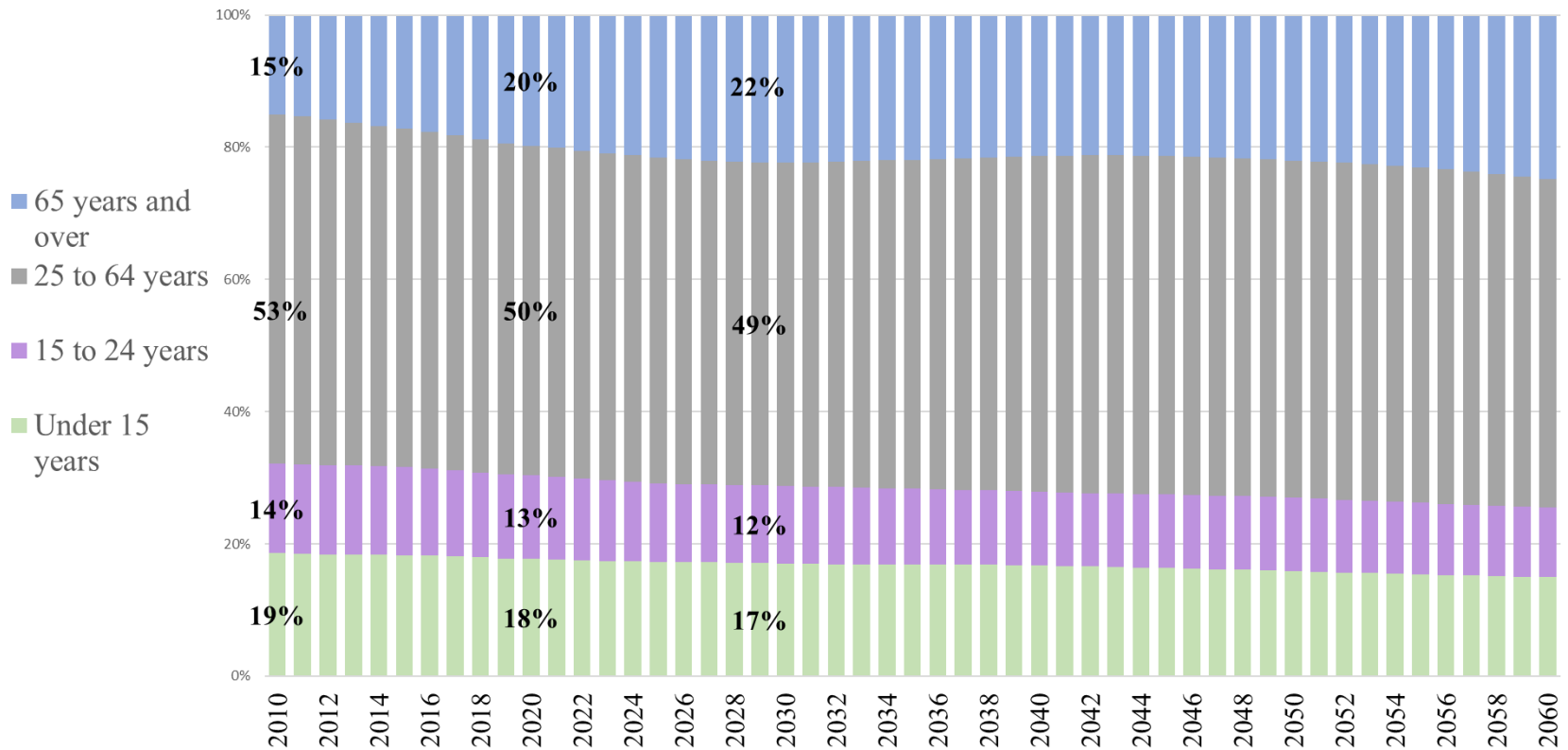
Population Shifts and Forecast

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Montana Projected Population - Percent Age Group of the Total Population 2010 - 2060

Historic Estimates for 2010-2020; Projected Figures for 2021-2060

Source: eREMI- a Product of Regional Economic Models, Inc. - Release 2021



QUESTIONS???

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BUREAU CHIEF

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MARY.CRAIGLE@MT.GOV

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